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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,518	01/27/2004	Elliott K. Stava	LEEE 2 00331	1023
27885	7590	11/30/2005	EXAMINER	
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			SHAW, CLIFFORD C	
			ART UNIT	PAPER NUMBER

1725

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/765,518	STAVA ET AL.	
	Examiner	Art Unit	
	Clifford C. Shaw	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 52-109 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 52-109 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/12/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1.) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.) Claims 52-73 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In independent claims 52 and 64, it is not clear what is intended by the language “output of said welding power source dependent solely on said control signal” when the control signal is described earlier in each claim as “at least partially control[ing] a welding parameter of said welding power source”. Applicant is describing the control signal as both partially controlling the output and solely controlling the output, making it unclear what the scopes of the claims are. It is further unclear how the claim language directed to the output of the power supply being dependent “solely on said control signal” corresponds to the invention disclosed. In figure 1 of the disclosure, the power supply is shown as having an on/off control at element 110, and two other control signals from elements 10 and 120 where the 120 control signal is optional. Thus, the power supply will always have at least two output controls, namely from element 10 and from 110. It is therefore unclear what applicant intends with his language specifying that the control signal “solely” controls the output of the power supply. The other claims are inadequate under 35USC112 in that they depend from claims 52 and 64.

3.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1725

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.) Claims 74, 77, 81, 92, 94, and 98 are rejected under 35 U.S.C. 102(b) as being anticipated by the United Kingdom document no. 1410870 (newly cited). In figure 1 and the discussion at pages 2-4, the United Kingdom document no. 1410870 discloses a MIG welding apparatus and method with features claimed, including: a manual wire speed selector at 23 that produces a control signal (note that in the United Kingdom document no. 1410870 the current control signal actually controls wire feed speed); a welding wire motor at 46 controlled by the signal from 23; an SCR based welding power source at 17 whose output voltage is controlled by the signal from 23; control signals based on type of shielding gas and size of electrode at 12 and 38.

5.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6.) Claims 52, 54, 55, 57, 59, 62, 64-66, 68, 70, 73, 76, 79, 84, 86, 87, 90, 93, 96, 100, 102, 104, 106, and 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over the United Kingdom document no. 1410870. The only aspects of the claims to which the rejection above does not apply are: the provision for a sole control signal; the provision for a solid wire; and the provision for a linear signal. These differences do not patentably distinguish over the

Art Unit: 1725

prior art. At the time applicant's invention was made, it would have been obvious to have controlled the system in the United Kingdom document no. 1410870 solely on the basis of the signals from element 23 if this system were being used for a fixed gas and electrode selection in which case the gas and electrode selection controls at 12 and 38 would be superfluous and could obviously be dispensed with. The United Kingdom document no. 1410870 does not mention any particular type of welding wire, leaving the selection of wire to be made on the basis of ordinary skill in the art. Since solid wire is a common type of welding wire, it would have been obvious to have used the system of the United Kingdom document no. 1410870 with the same, based on routine considerations, thereby satisfying the claims. In regard to the claim limitations calling for a linear function control signal, it would have been obvious to have used the same in the system of the United Kingdom document no. 1410870 in lieu of the non-linear control signal discussed if it were desired to forego the advantages of the non-linear signal (e.g., greater fidelity to the physical model of the arc welding system being controlled) for the greater simplicity and lesser expense of a linear based signal.

7.) Claims 53, 56, 58, 60, 61, 63, 67, 69, 71, 72, 75, 78, 80, 82, 83, 85, 88, 89, 91, 95, 97, 99, 101, 103, 105, 107, and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over the United Kingdom document no. 1410870 as applied to the claims above, and further in view of Nakajima et al. (4,527,045, previously cited). The only aspects of the claims to which the rejections above do not apply are the limitations directed to a microprocessor controller. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have implemented the control in the system of the

Art Unit: 1725

United Kingdom document no. 1410870 using any well known approach. In particular, it would have been obvious to have used a microprocessor based control in the United Kingdom document no. 1410870, the motivation being the teachings of Nakajima et al. (4,527,045) that such is feasible for controlling an arc welding system (see figure 1, element 7 in Nakajima et al. (4,527,045)).

8.) Applicant's remarks in his amendment filed on 9/14/2005 have been given careful consideration, but are not persuasive of patentability in view of the new grounds of rejection as set forth above.

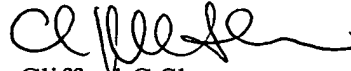
Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1725

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
Art Unit 1725

November 26, 2005